

What is claimed is:

1. A separator subassembly for a coiled electrode-type electrochemical cell, comprising:
 - an elongated separator layer; and
 - a spacer layer coupled to a portion of the elongated separator layer so that when an anode subassembly is enveloped within the elongated separator layer, the spacer layer aligns with and overlaps a surface-mounted anode current collector of the anode subassembly.
2. A separator subassembly according to claim 1, wherein opposing sides of the elongated separator layer couple together to form a sealed pouch around the anode subassembly.
3. A separator subassembly according to claim 2, wherein the spacer layer is relatively thicker than the separator layer.
4. A separator subassembly according to claim 3, wherein a portion of the separator layer approximately the size of the spacer layer is absent from said separator layer, and further comprising a mechanical or chemical bond disposed along at least a portion of a common periphery region between said separator layer and said spacer layer.
5. A separator subassembly according to claim 1, wherein said separator layer includes a longitudinal indicia or a longitudinal crease for receiving said a relatively thin edge of the anode assembly.
6. A separator subassembly according to claim 5, further comprising an aperture corresponding to a electrical tab member of said anode assembly,

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said aperture disposed adjacent the spacer layer and in alignment with said longitudinal indicia or said longitudinal crease.

7. A separator subassembly according to claim 1, further comprising at least two spacer layers, each of said at least two discrete spacer layers corresponding to, aligning with, and overlapping, respectively, a one of at least two surface-mounted current collectors coupled to the anode subassembly.

8. A separator subassembly according to claim 1, wherein the anode subassembly further comprises:

a lithium material; and

wherein the surface-mounted current collector couples to the lithium material.

9. A separator subassembly according to claim 8, wherein the surface-mounted current collector comprises a one of: a copper material, a nickel material, a titanium material.

10. A method of applying a separator subassembly to an anode subassembly, comprising:

providing an elongated separator layer;

coupling a spacer layer to a portion of the elongated separator layer;

folding the separator layer longitudinally so that an adequate amount of separator material exists on each side of the longitudinal fold to receive and envelop an elongated anode subassembly;

aligning a surface-mounted anode current collector of the anode subassembly with the spacer layer; and

bonding corresponding opposing portions of the separator layer together.

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11. A method according to claim 10, wherein the spacer layer is relatively thicker than the separator layer.

12. A method according to claim 10, wherein the anode subassembly comprises a lithium material and the surface-mounted current collector comprises a one of: a copper material, a nickel material, a titanium material.

13. A separator subassembly, comprising:

an elongated, generally rectangular sheet of dielectric separator material, said sheet of dielectric separator material having a portion removed to that corresponds in dimension to a surface-mounted current collector of an anode subassembly for a coil-type electrochemical cell; and

a portion of spacer material bonded in place of the removed portion and bonded to the periphery thereof.

14. A separator subassembly according to claim 13, wherein the portion of spacer material is disposed along an edge of the sheet of dielectric separator material.

15. A separator subassembly according to claim 14, further comprising an aperture disposed along a longitudinal crease or a longitudinal indicia and adjacent an edge of the portion of spacer material, wherein said aperture is adapted to receive an electrically conducting tab that couples to the surface-mounted current collector.